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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/735,555	12/14/2000	Kunihiro Itoh	108075-00022	6570

7590 04/30/2002

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EXAMINER

CHANG, DANIEL D

ART UNIT	PAPER NUMBER
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2819

DATE MAILED: 04/30/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/735,555

Applicant(s)

ITOH ET AL.

Examiner

Daniel D. Chang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 April 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 December 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 7. 6) ☐ Other: _____

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Acknowledgement

Receipt is acknowledged of the Amendment filed April 11, 2002.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

Claims 1-11 are rejected under 35 U.S.C. 102(e) as being anticipated by Wert et al. (US 6,281,706 B1).

In figures 7A and 8, Wert teaches an output buffer circuit comprising:

a first drive circuit comprising first and second output transistors (701, 711);

an input signal (301);

a second drive circuit comprising third and fourth output transistors (705, 717);

an output terminal (305), wherein the third and fourth output transistors having lower impedance than the first and second output transistors (inherent, see col. 3, lines 8-18, col. 4, 3-42).

a delay circuit (728, 727);

a first control circuit (707, 719) and a second control circuit (310) generating first (725), second (output of 703), third (output of 713), and fourth (726) control signals,

wherein the first control circuit (707, 719) is for generating the first control signal (logic low at 725 and 726) for driving the second drive circuit (705, 717) after the output signal

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(OUTPUT 305) is changed (low to high) by a predetermined amount (see the time difference between 751 and 752 in fig. 7B); and

a plurality of sub-drive circuits (812-819 in fig. 8), wherein at least one of the sub-drive circuits is selectively enabled to set the output impedance of the second drive circuit (col. 4, line 61 - col. 5, line 32).

Method claims 1-4 are essentially the same in scope as apparatus claims 5-11 and are rejected similarly.

Response to Arguments

Applicant's arguments filed April 11, 2002 have been fully considered but they are not persuasive.

102 rejection of Claims 1, 2 and 5 over Wert:

Applicant argues, on page 5 of the amendment, that "Wert does not and cannot teach driving the second drive circuit after the output signal of the first drive circuit changes because the second drive circuit is only driven while the first drive circuit is driven."

However, the recitation, "driving the second drive circuit" can be interpreted in many different ways depending on how the word, "driving" is defined.

In response to a low to high transition of an input signal, Wert teaches (col. 3, lines 54-67; col. 4, lines 20-34; and figure 7B) that the transistor 705 of the second drive circuit turns on after the transistor 701 of the first drive circuit turns on. Transistors 711 and 717 are turned off at this time. When the transistor 701 turns on, the output signal of the first drive circuit (OUTPUT 305) will start changing from logic low to logic high; and when the transistor 705

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turns on, the output signal will stay high. Looking at the period from the point where the transistor 701 turns on to the point where the transistor 705 turns on, the control signal is “driving the second drive circuit (to turn on 705 and turn off 717) after the output signal (305) of the first drive circuit changes” from low to high (after 701 is ON and 711 is OFF) by a predetermined amount (propagation delay of 709 and 707). As each and every limitation is found in the Wert reference, as explained above, the rejection of claims 1-11 as anticipated by Wert is maintained.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

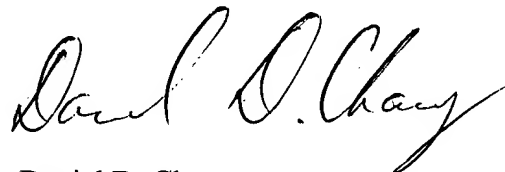
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel D. Chang whose telephone number is (703) 306-4549. The examiner can normally be reached on Monday through Thursday and every other Friday.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael J. Tokar can be reached on (703) 305-3493. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9318 for regular communications and (703) 872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

A handwritten signature in black ink, appearing to read "Daniel D. Chang". The signature is fluid and cursive, with the first name "Daniel" and last name "Chang" clearly distinguishable.

Daniel D. Chang
Examiner
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DC
April 29, 2002